

## **O. Reg 243/07: Private School 2007 Lead Testing Results**

### How many private schools sampled for lead in 2007?

The Ministry of Environment, with assistance from the Ministry of Education, identified 771 private schools that are subject to Ontario Regulation 243/07 (O. Reg. 243/07) for the 2007 sampling period. Of these 771 facilities, 341 (or 44 per cent) tested lead levels in their plumbing.

Under the regulation, schools are required to submit both a standing and flushed sample. While most schools met this requirement, in several cases, only one sample was submitted, while in other instances, the ministry was unable to positively identify the sample as flushed or standing.

The ministry is currently contacting private schools that did not sample during this first round of testing, and will be working with facility operators to help them fully understand their regulatory sampling requirements for future testing rounds.

### What are the sampling requirements?

O. Reg. 243/07 requires that schools and private schools, as well as day nurseries with plumbing installed after 1989, test their drinking water for lead on an annual basis. Two samples must be taken from a tap that provides water for consumption by children, and the samples must be taken from a tap in the facility that is most likely to be served by lead plumbing, or plumbing that contains lead solder.

If the facility's plumbing was installed before 1990, Ontario Regulation 243/07 requires the operator to flush the plumbing for at least five (5) minutes on a daily basis. Schools and day nurseries with plumbing installed after 1989 must flush the plumbing once a week.

### How often do private schools have to sample?

Annually. Under O. Reg. 243/07, all schools and private schools, as well as day nurseries with plumbing installed after 1989, must test their drinking water for lead on a yearly basis. Schools and private schools must take the required samples between June 15 and August 15, and day nurseries must take the required samples between

*Protecting our environment.*



May 1 and October 31. Please note that the results presented in this document are from samples taken in 2007; results from 2008 testing are still being compiled.

#### Why haven't all private schools sampled?

It is the ministry's goal to work with the regulated community to ensure all operators are aware of this new regulation, and understand its requirements to ensure full compliance. During the first round of testing, several recurring issues were noted regarding the application of the regulation, including:

- Facility operators were often unsure as to whether the regulation applied to their facility. For example:
  - Some facilities registered with the ministry, but upon closer inspection it was determined that the regulation did not apply to the facility. For example, there is no requirement to take samples at maintenance or administrative buildings owned by a school board, or locations which do not meet the definition of a school under the Education Act.
  - Some facilities thought they were exempt from the regulation – often because they were co-located with another facility, or leased space.
- Facility owner was unaware of regulation.
  - Particularly an issue with private schools that have no common association or group to assist with the distribution of informational material.

The ministry continues to work with the private school community through its outreach and education initiatives and through contact with our provincial officers to ensure all operators understand and are meeting their regulatory requirements.

#### What is the difference between a standing and flushed result?

##### *Standing Sample*

- This sample is taken after a period of six (6) or more hours when the plumbing is not used, if practicable.
- This sample represents the quality of water that has been sitting in the plumbing overnight.

##### *Flushed Sample*

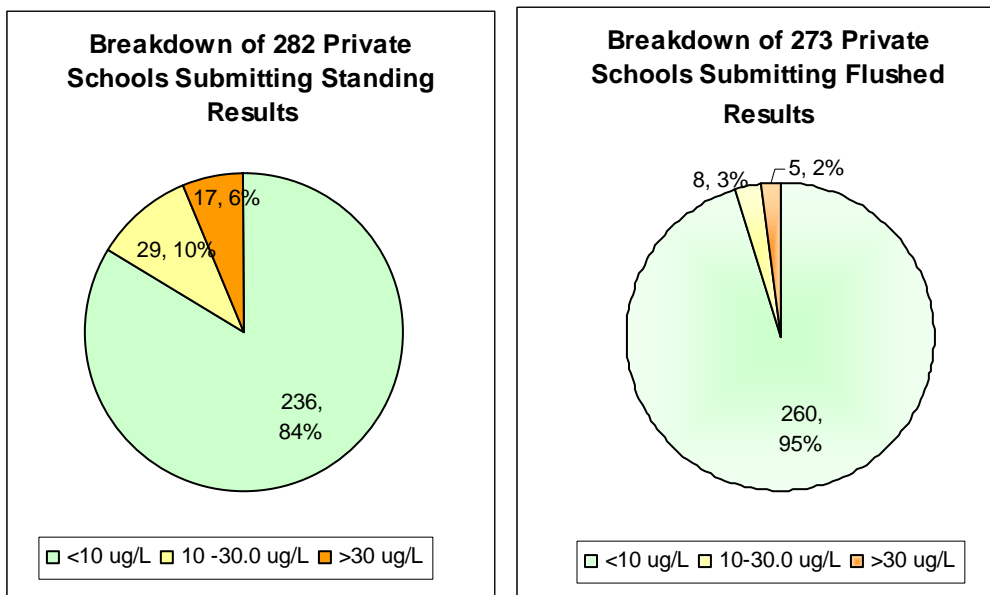
- After the standing sample is taken, the tap should be flushed for five (5) minutes; then turned off for 30-35 minutes.
- The flushed sample is taken after the 30-35 minute wait period.

- This sample represents the quality of water that would be consumed during the day with regular use of the water.

#### What concentration of lead is being found in private schools?

As shown in the following graphs, 84 per cent of private schools that submitted a standing sample were below the Ontario Drinking Water Quality Standard of 10 µg/L. Following flushing, 95 per cent of private schools were below 10 µg/L.

The results indicate flushing is effective in reducing the concentration of lead in drinking water.



#### What do the numbers on the graphs mean?

The two graphs visually demonstrate the percentage of schools with a maximum lead result of i) less than 10 µg/L (green), ii) between 10 – 30 µg/L (yellow), and iii) greater than 30 µg/L (orange).

The graphs show two numbers within each section of the pie. The first is the number of private schools within each concentration category. For example, 236 private schools submitting standing samples had a maximum standing result of less than 10 µg/L.

The second number represents the percentage of private schools within each concentration category. For example, 84 per cent of private schools (236/282) had a maximum standing result of less than 10 µg/L.

#### *Standing Results*

- 282 private schools submitted standing samples
  - 84 per cent of schools were below the Ontario Drinking Water Quality Standard (ODWQS) of 10 µg/L for lead.
  - 10 per cent of schools had a maximum standing sample result between 10-30 µg/L.
  - 6 per cent of schools had a maximum standing result of greater than 30 µg/L.

#### *Flushed Results*

- 273 private schools submitted flushed results
  - 95 per cent of schools were below the ODWQS of 10 µg/L for lead.
  - 3 per cent of schools had a maximum flushed result between 10-30 µg/L.
  - 2 per cent of schools had a maximum flushed result of greater than 30 µg/L.

#### What does the province do if a private school has a result above 10 µg/L?

If a school has a lead result (standing or flushed) above 10 µg/L, the lab that analyzed the sample is required to notify the operator of the school, the ministry's Spills Action Centre, and the local Medical Officer of Health.

Both the Ministry of the Environment and the local Medical Officer of Health will follow up with the owner to ensure appropriate corrective actions are taken. Under the regulation, the operator of the facility is required to follow the direction of the local Medical Officer of Health. This may include resampling, modifying their flushing protocol, or updating/modifying plumbing in the building.

The Ministry of the Environment recommends resampling until two clean flushed results are received. These samples should be taken between 7 and 30 days apart. A provincial officer from the Ministry of the Environment will continue to monitor and track the progress of a facility's corrective actions until both the ministry and the local health unit are satisfied the issue has been resolved.

Why doesn't the number of schools submitting results match for the various statistics?

The implementation of a new regulation created several challenges including ensuring the newly regulated community was informed of, and understood their requirements. A review of the first sampling period revealed that a number of facilities did not sample correctly. For example:

- Facilities only submitted a single sample (i.e., standing OR flushed).
- Facilities did not properly identify samples (i.e., as a regulated sample, as standing, or flushed).
- Facilities sampled but did not follow the specific sampling protocol outlined in the regulation.

From the data, the ministry could determine many of these facilities took at least one sample (341 private schools submitted a result); however, only 282 private schools submitted a result that could be positively identified as a *standing*, and 273 schools submitted a result that could be positively identified as *flushed*.

The ministry continues to work with the facility operators via education and outreach sessions, information posted on the website, and contact with our provincial officers to ensure facilities understand their regulatory requirements and future rounds of sampling are conducted per the regulation. In cases of further non-compliance with the regulation, the ministry may use other regulatory tools as necessary to bring facilities into compliance.

How do I find out the results for a specific private school?

Under the regulation, private schools are required to retain their lead results for six years. Furthermore, the results must be made available to review upon request, by any member of the public during normal business hours.

For lead results for a particular school, please contact the school operator.